

Stakeholder Meeting #3 February 16<sup>th</sup>, 2012



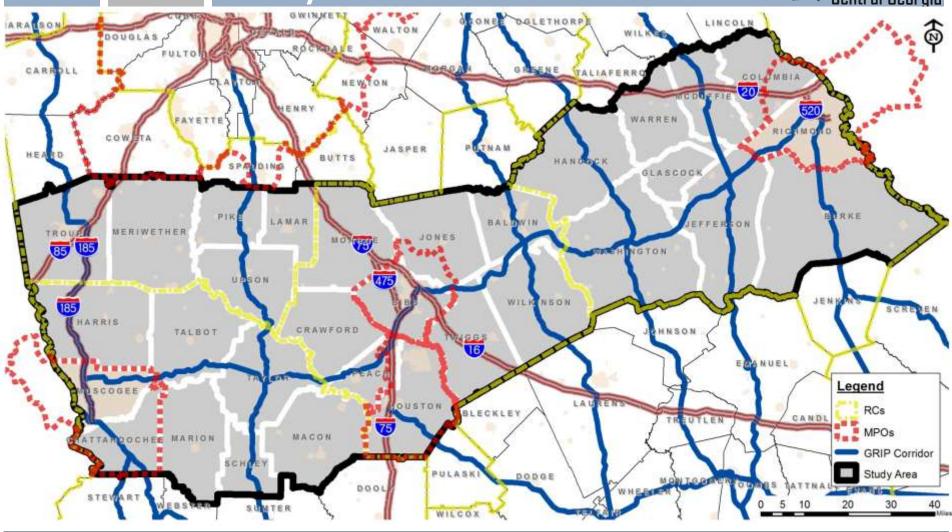
#### Agenda



- Study Progress
- Stakeholder & Public Input
- Future Conditions (2035 No Build)
- Economic Profile
- Scenario Building
  - Group Activity

### Study Progress Study Area





#### Study Progress Work Tasks



- Stakeholder & Public Involvement (Ongoing)
- Data Inventory/Collection (Complete)
- Goals & Objectives (Complete)
- Existing Conditions (Draft)
- Future Conditions (Today)
- Scenario Development & Screening (Today)
- Potential Improvements Development (April 2012)
- Preliminary Recommendations Development & Evaluation (Summer 2012)

### Study Progress Schedule



#### **STUDY SCHEDULE** 2012 2011 May July Jun Aug Sept Dec Mar Oct Nov Jan Feb Apr Stakeholder & Public Involvement Data Inventory/Collection Goals & Objectives Existing & Future Conditions/ Needs Assessment Scenario Development/Screening Potential Improvements Preliminary Recommendations Stakeholder Meeting



## Study Progress Goals & Objectives



- Improve safety, accessibility, and mobility options available to people and for freight.
- 2. Enhance the inter-regional **connectivity** of the transportation system for people and freight.
- 3. Promote efficient system management and operation.
- 4. Emphasize the **preservation** of the existing transportation system.
- 5. Protect **quality of life**, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.

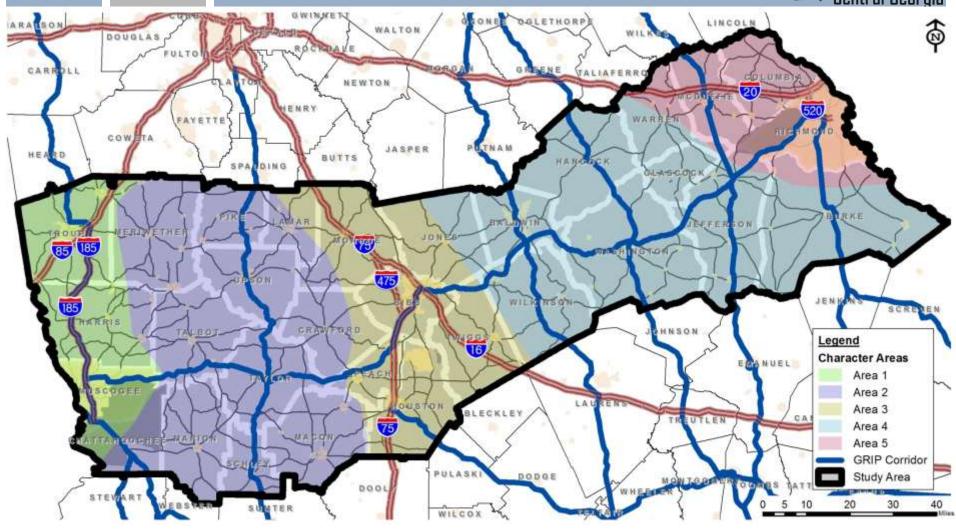
### Study Progress Performance Measures



	Goals				
Performance Measures	<b>1</b> Safety/ Mobility	2 Connectivity	<b>3</b> Efficiency	4 Preservation	5 Quality of Life
Level of Service	$\checkmark$		$\checkmark$		
Travel Time / Travel Speeds	$\checkmark$	$\checkmark$	$\checkmark$		
Crash Rate	$\checkmark$				
Number / Types of Connections	$\checkmark$	$\checkmark$	$\checkmark$		
Multi-Modal Options	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Level of Environmental Impact				$\checkmark$	$\checkmark$
Links to Development Opportunities		$\checkmark$	$\checkmark$		$\checkmark$
Consistency with Comprehensive Plan / Land Use Plan				$\checkmark$	$\checkmark$

### Study Progress Character Areas

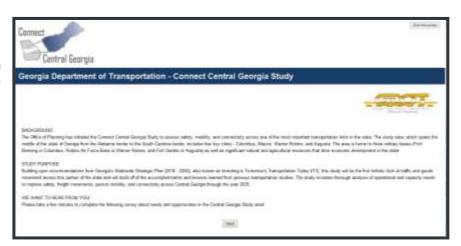




#### Stakeholder & Public Input Regional Public Outreach



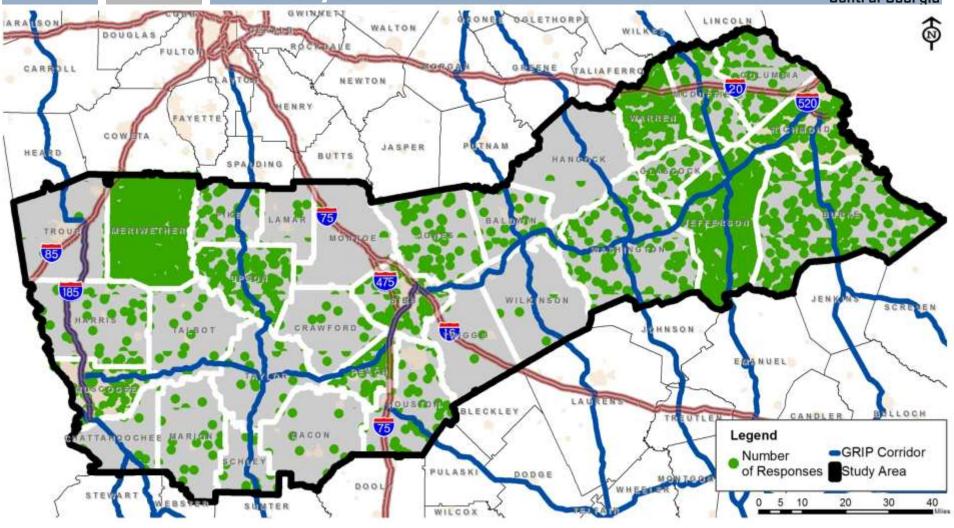
- Activities to Date
  - Public Survey 2,600 Surveys!
    - School System
    - Public Libraries
    - Study Stakeholders
  - Kaolin Festival
  - News Interview/Press
- Upcoming Activities
  - MPO Meetings
  - RC Meetings
  - Kiosks at Public Events





### Stakeholder & Public Input Survey Results

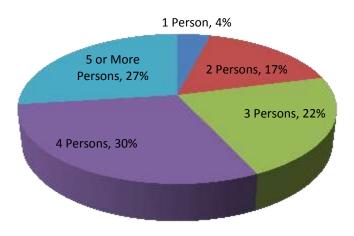




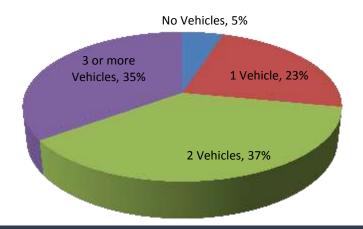
### Stakeholder & Public Input Survey Results



#### How many people live at your home?



#### How many operating vehicles our at your home?



Issue	Yes	No
Speeding	43%	57%
Been unable to pass slow moving vehicles	35%	65%
Traffic backup on roads	33%	67%
Traffic backup at intersections	32%	68%
A lack of sidewalks	30%	70%
Any safety issues	29%	71%
A need for a traffic signal at intersections	28%	72%
Farm tractor traffic slowdowns	28%	72%
Problems with tractor-trailer trucks	27%	73%
A lack of roadway shoulders	21%	79%
A lack of turn lanes	21%	79%
Difficulty trying to get onto a road	20%	80%
A lack of on-demand, rural, or public bus service	17%	83%
Any other traffic problems	11%	89%

## Stakeholder & Public Input Survey Results



#### How often do you travel from your home to the following cities?

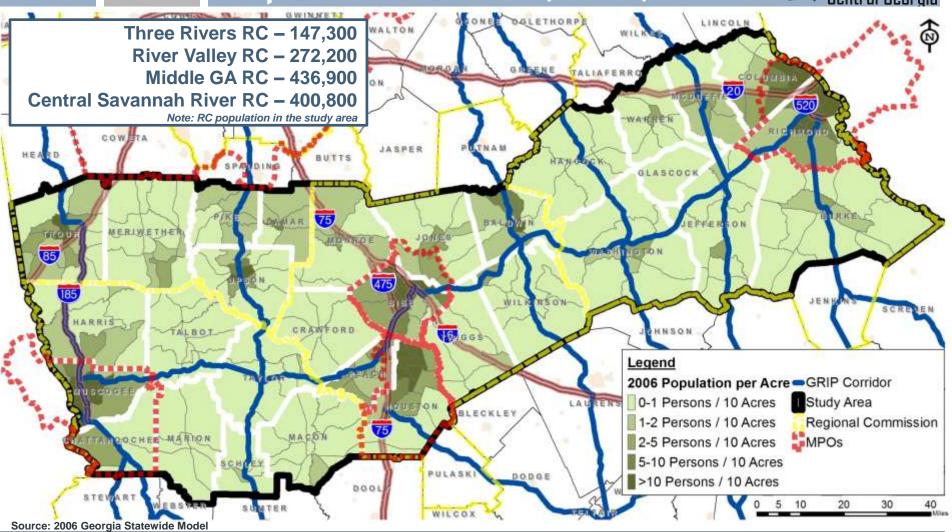
	Several trips per month	Monthly	5 or more trips per year	4 or fewer trips per year	Never
Columbus	16%	7%	7%	25%	45%
Macon	12%	7%	8%	27%	46%
Warner Robins	7%	2%	5%	19%	67%
Augusta	32%	8%	7%	13%	40%

#### How often do you travel from your work to the following cities?

	Several trips per month	Monthly	5 or more trips per year	4 or fewer trips per year	Never
Columbus	8%	2%	3%	10%	77%
Macon	7%	3%	3%	11%	76%
Warner Robins	5%	2%	1%	8%	84%
Augusta	16%	5%	4%	8%	67%

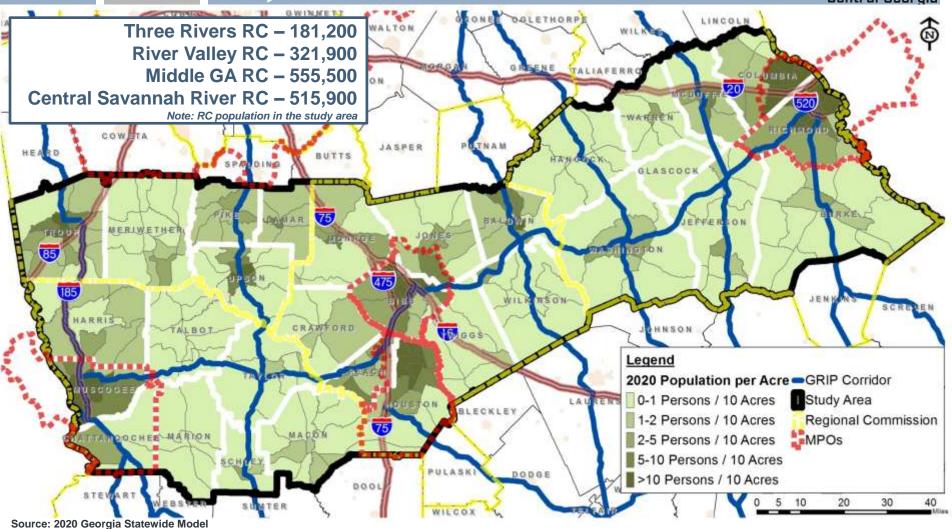
## Existing Conditions Population Per Acre (2006)





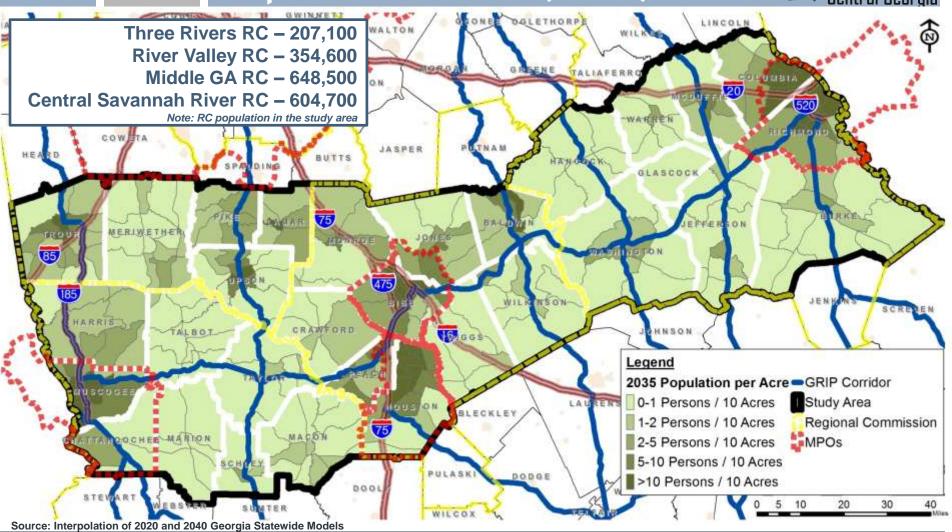
## Future Conditions Population Per Acre (2020)





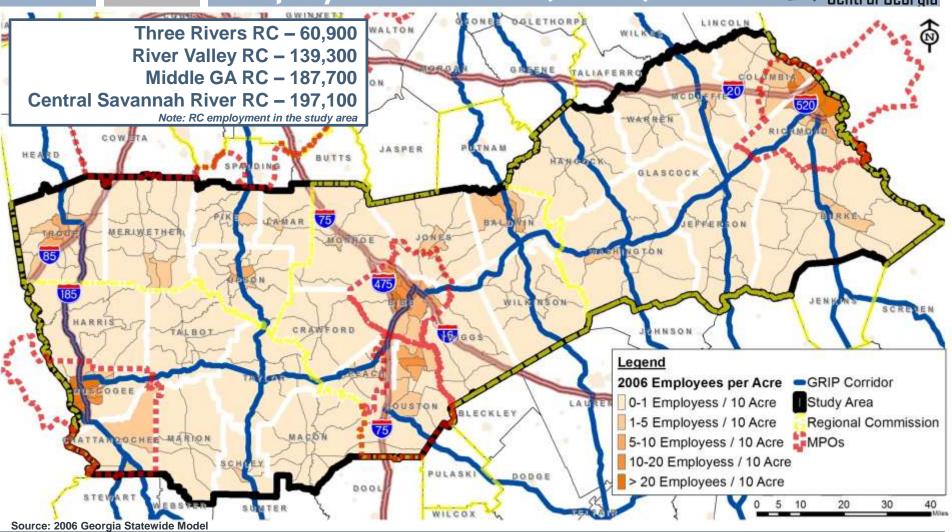
## Future Conditions Population Per Acre (2035)





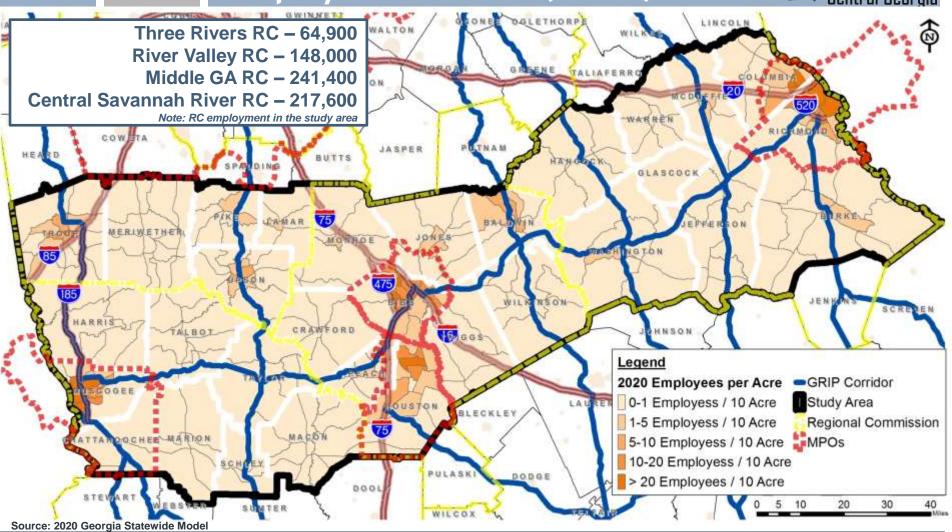
#### Existing Conditions Employees Per Acre (2006)





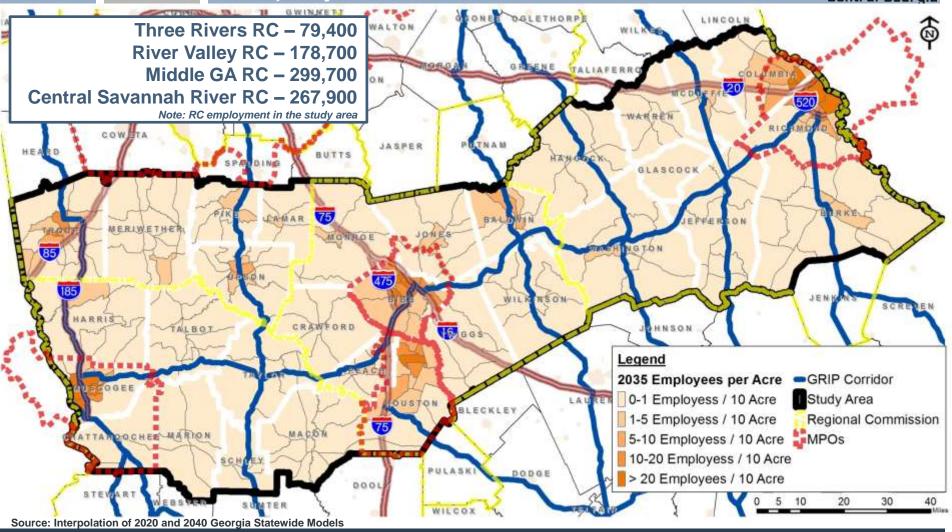
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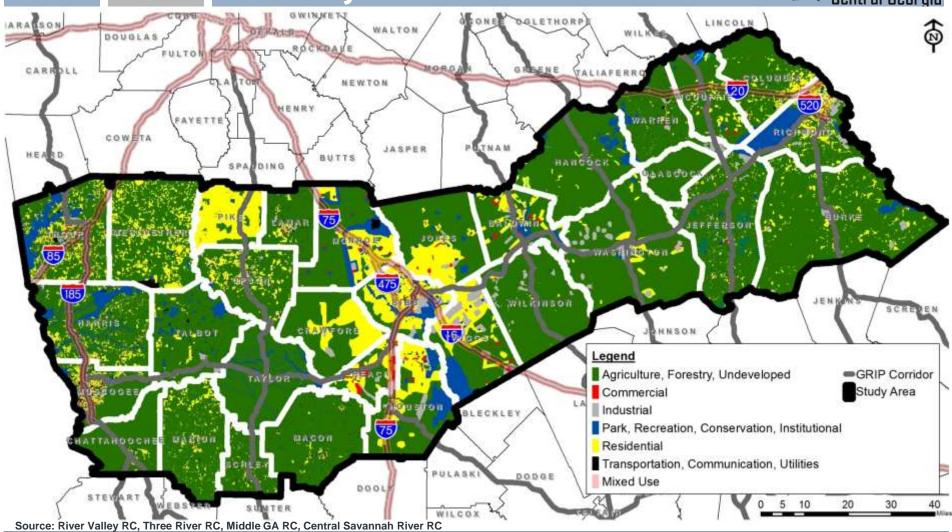
#### Future Conditions Employees Per Acre (2035)





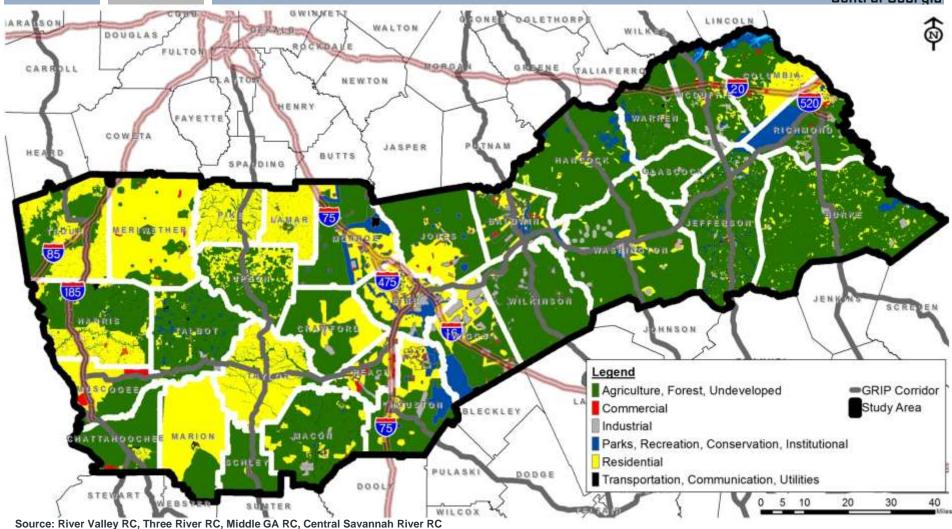
#### Existing Conditions Existing Land Use





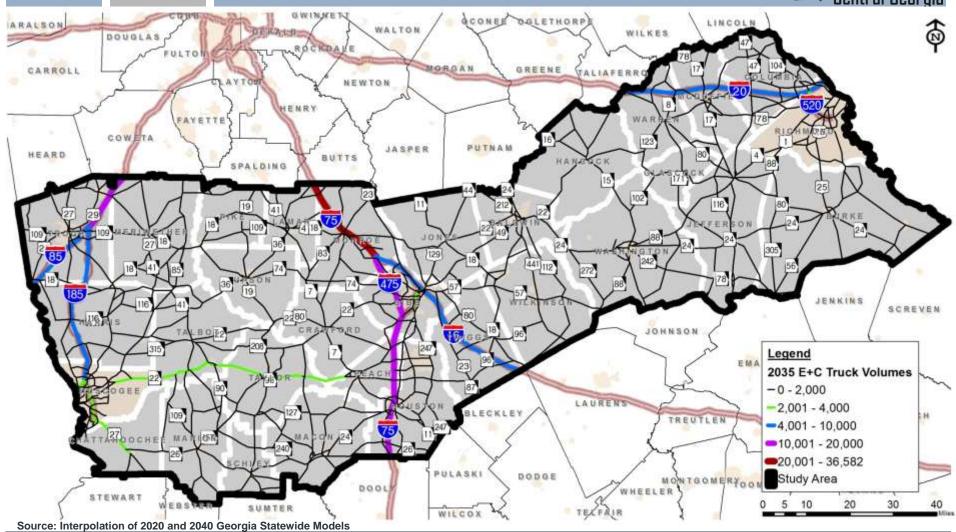
#### Future Conditions Future Land Use





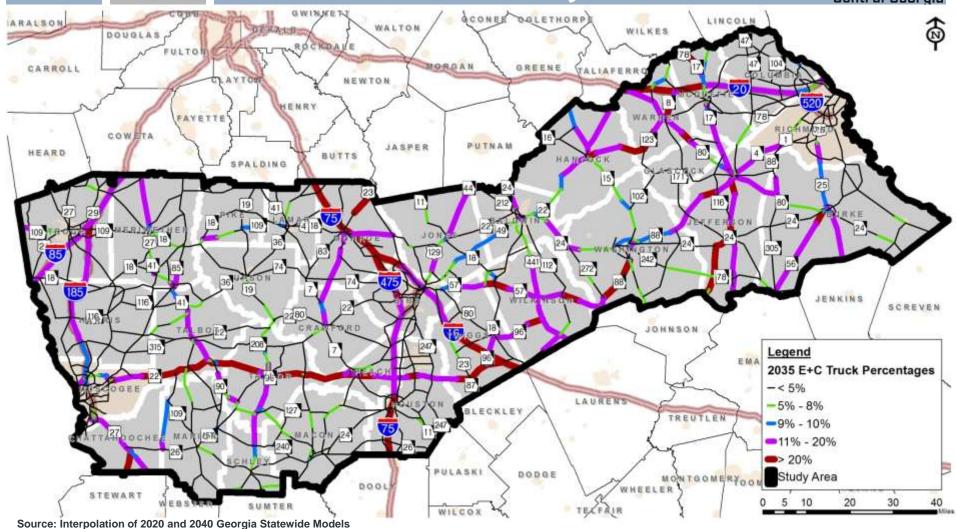
#### Future Conditions 2035 Truck Volumes





### Future Conditions 2035 Truck Percentages

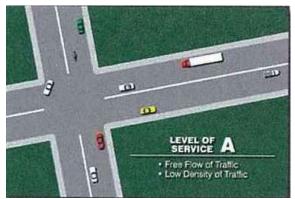


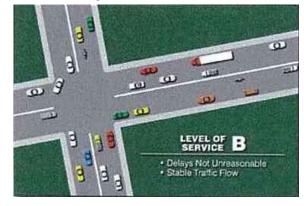


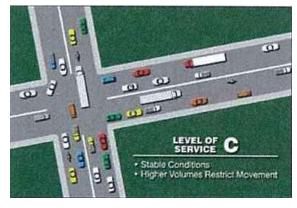
#### Existing Conditions Capacity Analysis

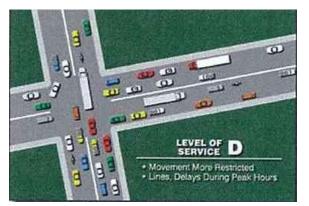


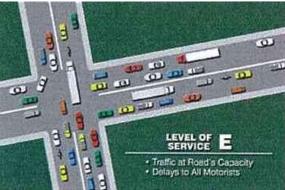
- Level of Service (LOS)
  - Qualitative Measure of Traffic Flow Used to Describe Operating Conditions from the Perspective of Travelers







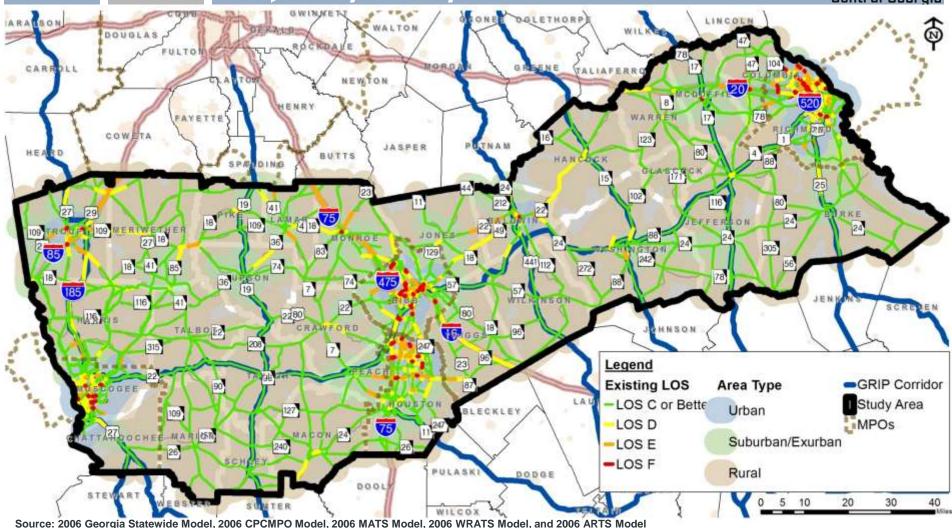






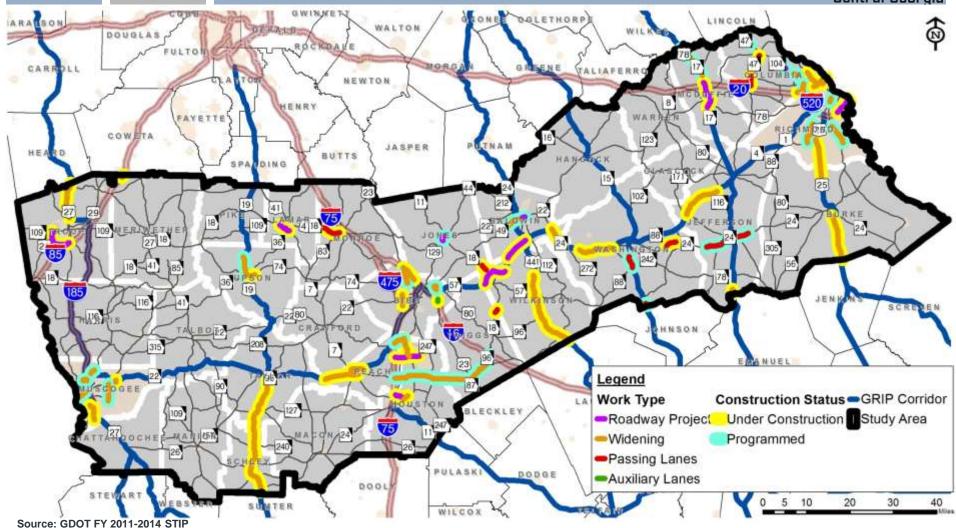
# Existing Conditions Capacity Analysis (2006)





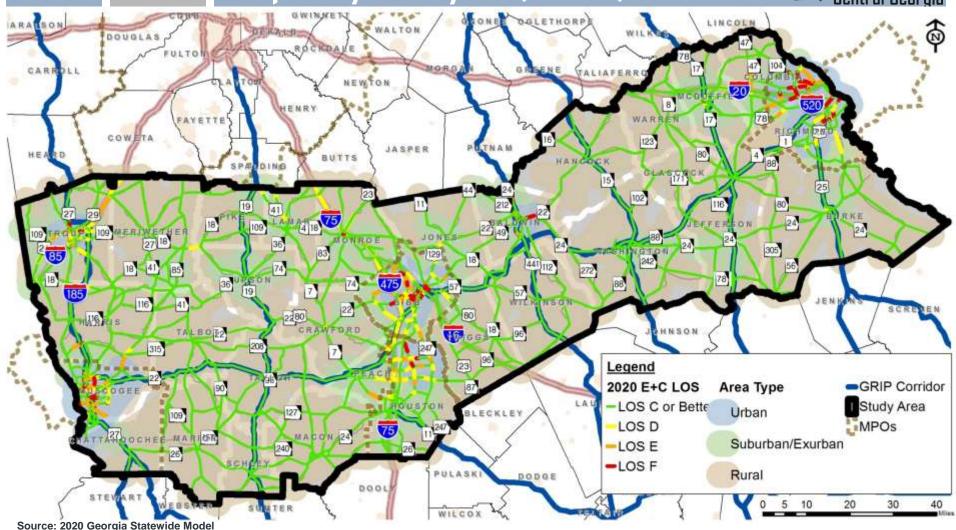
# Future Conditions FY 2012-2015 STIP





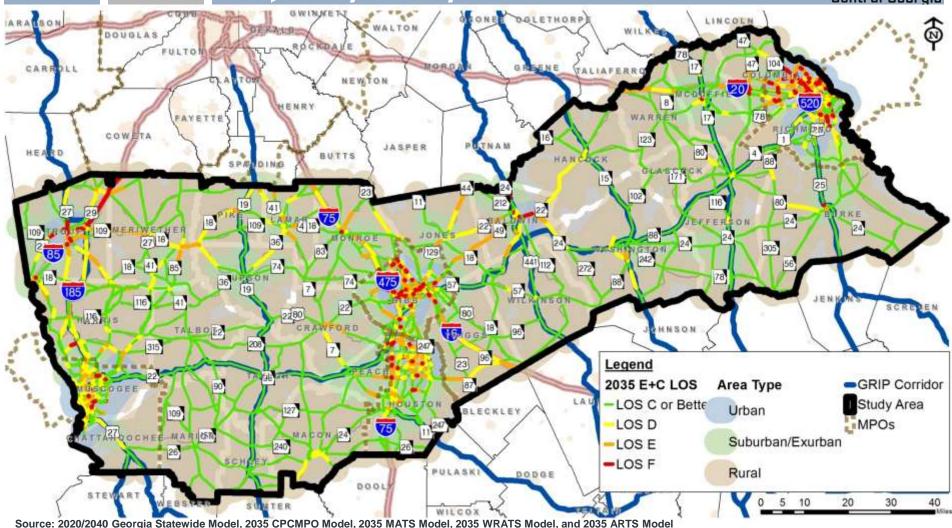
# Future Conditions Capacity Analysis (2020)





### Future Conditions Capacity Analysis (2035)





### Future Conditions Connectivity Matrix



# of Daily Trips in 2035		Character Area					
		1 Columbus	2 Rural West	3 Macon/Warner Robins	4 Rural East	5 Augusta	
	1 Columbus	860,600	32,200	200	100	100	
e e	2 Rural West	32,300	250,700	32,900	100	100	
Character Area	3 Macon/Warner Robins	200	32,900	1,142,700	16,400	200	
5	4 Rural East	100	100	16,700	293,700	18,900	
	5 Augusta	100	100	200	18,700	1,174,700	

Source: 2035 Georgia Statewide Model

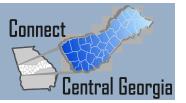


### Future Conditions Transportation Needs



	Character Area					
	1	2	3	4	5	
Needs	Columbus	Rural West	Macon/Warner Robins	Rural East	Augusta	
<b>Deficient Segments</b>	(LOS D or worse) (Source	e: GDOT Statewide Travel De	emand Model)			
2035 (E+C)	US 29 (LaGrange) US 27 (LaGrange) US 27 (LaGrange) UPPER Big Springs Rd (LaGrange) Hamilton Rd (LaGrange) SR 109 (LaGrange) SR 18 (Pine Mt) SR 315 SR 85 (Columbus) Flat Rock Rd (Columbus)	e: GDOT Statewide Travel De S Main St Old Hwy 41 SR 74 (Woodbury) SR 85 (Woodbury) US 19 (Zebulon) SR 18 (Zebulon) US 41 (Barnesville) Forsyth St (Barnesville) US 19 (Thomaston) SR 42 (Roberta)	US 341 (Fort Valley) US 41 (Forsyth) US 129 (Macon/Gray) US 80 (Macon)	Glynn St (Milledgeville) SR 22 (Milledgeville) US 441 (Milledgeville) SR 49 (Milledgeville) Smith Rd	SR 10 (Thomson) US 278 (Thomson) Old Evans Rd US 221 (Grovetown) Wrightsboro Rd (Grovetown) Harlem Grovetown Rd (Grovetown) Patterson Bridge Rd Springhill Church Rd (Augusta)	
	Fortsom Rd (Columbus)		Lakeview Rd (Macon) SR 96 (Warner Robins) SR 49 (Fort Valley/Warner Robins) Houston Rd (Macon/Warner Robins)		Brothersville Rd (Augusta) Deans Bridge Rd (Augusta) Windsor Spring Rd (Augusta) US 25 (Augusta) Tobacco Rd (Augusta) SR 56 (Augusta)	

### Future Conditions Transportation Needs



	Character Area				
	1	2	3	4	5
	Columbus	Rural West	Macon/Warner	Rural East	Augusta
Needs			Robins		
Freight Transport					
N-S Truck Routes (#)	2	1	3	3	2
E-W Truck Routes (#)	1	1	3	1	2
Rail (miles)	210	442	401	372	254
Safety (Source: CARE Database – 2007-2009	)				
# of Crashes (State Roads)	10,939	4,406	14,488	6,144	17,779
# of Fatalities (State Roads)	48	56	94	43	65
# of Above Average Crash Segments (GRIP Corridors)	5	10	1	15	5

### Future Conditions Transportation Needs



	Character Area					
	1	2	3	4	5	
	Columbus	Rural West	Macon/Warner	Rural East	Augusta	
Needs			Robins			
Bridges (Source: GDOT Bridge Inventory Mo	anagement System)					
# Sufficiency < 50	6	6	5	3	2	
GRIP Corridors						
% Complete	US 27 (91%) Fall Line (100%)	US 19 (58%) Fall Line (90%)	Fall Line (100%)	Savannah River Pkwy (22%) SR 15 (5%) US 1/SR 17 (7%) Fall Line (34%)	Savannah River Pkwy (98%) US 1/SR 17 (11%) Fall Line (83%)	
Public Transportation						
	Moderate coverage of urban and rural services	Moderate coverage of rural services	Moderate coverage of urban and rural services	Moderate coverage of rural services	Moderate coverage of urban and rural services	

### Future Conditions Operational Methodology



- Hot Spot Identification/Observations
  - Stakeholder/Public Comments
  - Safety Conditions
  - Capacity Analysis
  - Field Observations

# Economic Analysis Purpose



- Economic analysis approach is designed to:
  - Demonstrate the strategic role transportation can play in economic advancement
  - Identify strategic opportunities for increasing the economic performance in Central Georgia

# Economic Analysis Approach



- Step 1. Benchmark Central Georgia with Georgia and the U.S. to determine degree of economic performance based on:
  - Population growth
  - Jobs growth
  - Wage levels
  - Unemployment
- Each concept is important as a measure of overall economic health and can be influenced by transportation investment decisions

# Economic Analysis Approach



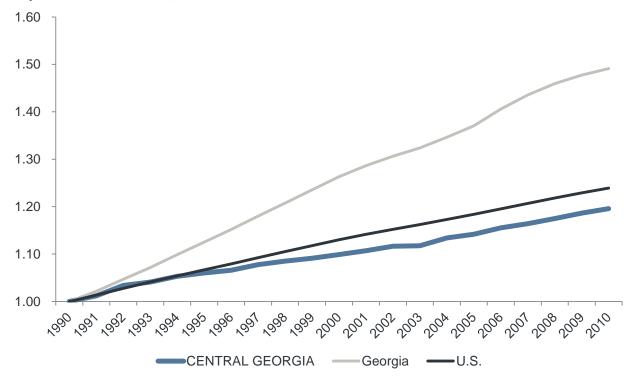
- Step 2. Determine the extent to which additional transportation infrastructure is a necessary pre-condition for economic development in Central Georgia
  - Importance of transportation in the context of other economic development issues
  - Examine how key transportation-intensive industries may benefit from improved transportation connectivity, capacity, and services
  - Conduct three case studies to demonstrate the challenges and opportunities present within the study area

# Economic Analysis Population Growth Index



 Long-term population growth in Central Georgia lags both the State and the U.S.

#### Population Growth Index, 1990=1.00



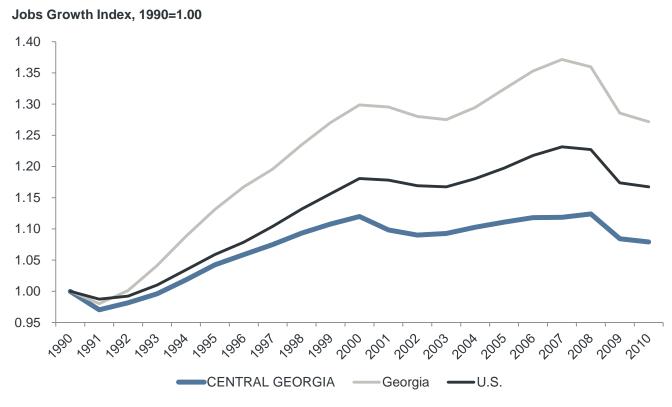
Source: U.S. Census Bureau



### Economic Analysis Jobs Growth Index



 Long-term jobs growth in Central Georgia lags both the State and the U.S.



Source: U.S. Department of Commerce, Bureau of Economic Analysis

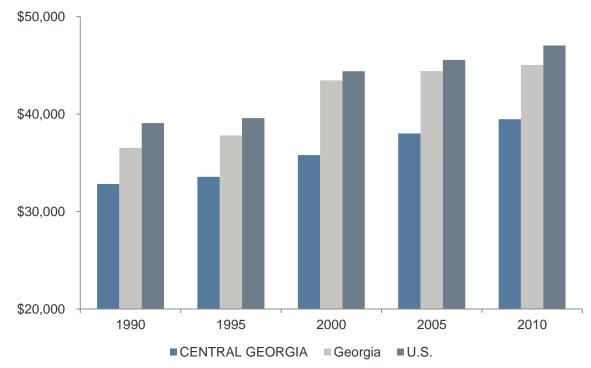


#### Economic Analysis Average Wage Per Job



 Wage levels in Central Georgia are 16 –17% below the U.S. average

#### Average wage per job in 2010 dollars



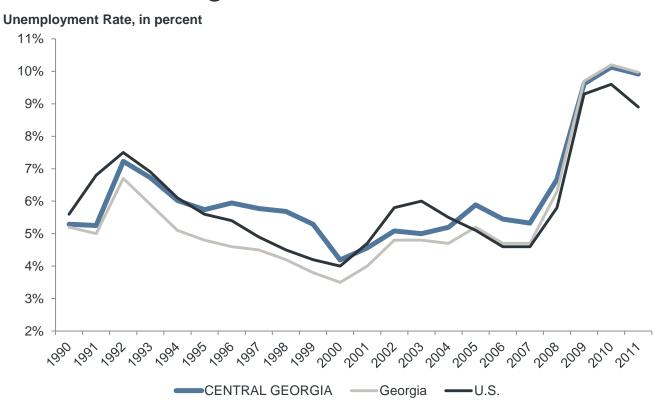
Source: U.S. Department of Commerce, Bureau of Economic Analysis



### Economic Analysis Unemployment



 Until the recession, Central Georgia's unemployment rate tended to be higher than the State's



Source: U.S. Department of Labor, Bureau of Labor Statistics; 2011 data are preliminary



## Economic Analysis Summary



- Based on these long-term historical trends, Central Georgia has lagged the State and U.S. in:
  - Population growth
  - Jobs growth
  - Wage levels
- Investigate the level of economic opportunity that can be created by transportation investments through:
  - Connectivity and access
  - Capacity
  - Reliability
  - Time savings





### Connect Central Georgia

#### Scenario Building

- Scenario Planning
  - Provides a comparison of multiple factors
    - Transportation
    - Land Use
    - Economic Development
  - Reflects how various scenarios could impact the transportation network
  - Identifies possible strategies for achieving a preferred future



#### Scenario Building

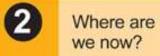




Scope the effort and engage partners.

Considerations: Process goals, objectives, budget, and stakeholder roles and responsibilities.

Output: Work plan.



Establish baseline analysis. Identify factors and trends that affect the state, region, community, or study area.

Considerations: Transportation and land supply, suitability, and demand; state, regional, community, or study-area trends.

Outputs: Transportation systems inventory, land suitability analysis, evaluation of historical trends.



Establish future goals and aspirations based on values of the state, region, community, or study area.

Considerations: Key values and priorities for the state, community, region, or study area.

Outputs: Set of working principles that document broad state, community, region, or studyarea goals and preferences.

Source: FHWA Scenario Planning Guidebook



#### Scenario Building





What could the future look like?



Create baseline and alternative scenarios.

Considerations: Scenario types, analysis tools, travel demand model.

Outputs: Identification of appropriate scenario analysis tool or refinement of travel demand model; baseline and alternative scenarios.



What impacts will scenarios have?

Assess scenario impacts, influences, and effects.

Considerations: Indicators to help evaluate scenario performance.

Outputs: Refined or calibrated analysis tool(s) or model(s) if necessary; list of indicators to compare scenario outcomes; qualitative or quantitative assessment of scenario impacts.



How will we reach our desired future?

Craft the comprehensive vision. Identify strategic actions and performance measures.

Considerations: Stakeholder feedback on scenarios and the future blueprint; potential actions, investments, or policies to lead the state, community, region, or study area toward the comprehensive vision. Outputs: Comprehensive vision; action steps; performance measures to assess progress; plan for monitoring progress.

Source: FHWA Scenario Planning Guidebook

### Scenario Building What Could the Future Look Like?



- Types of Scenarios
  - Baseline scenarios: What might the future look like given the continuation of current policies, programs, and development forms?
  - Growth/socioeconomic scenarios: What might the future look like given different population or growth projections?
  - Policy scenarios: What might the future look like given combinations of different policies, actions, or strategies, such as policies focused on mode splits, asset management, or preservation?
  - Environmental scenarios: What might the future look like given different environmental trends and needs?
  - Economic scenarios: What might the future look like given different trends in various sectors of the economy?
  - Hybrid scenarios: Combinations of several scenario types.



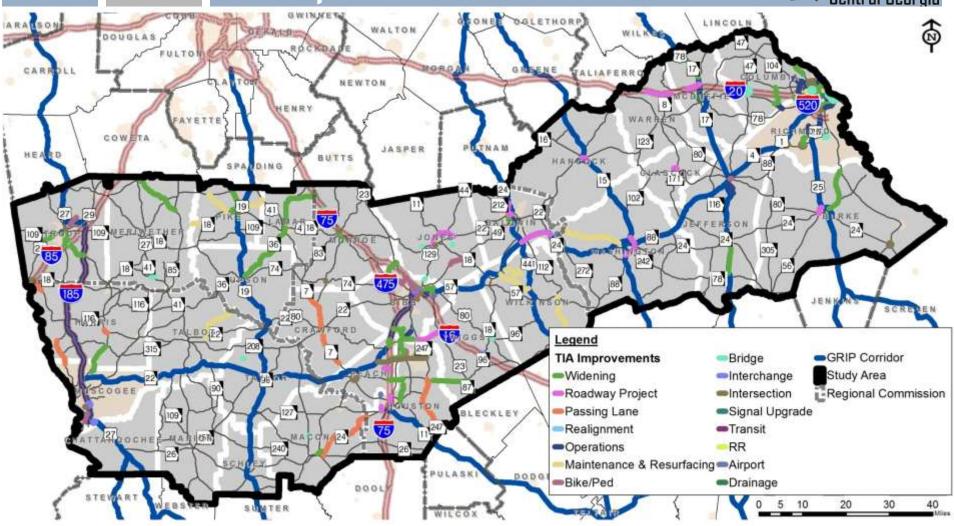
### Scenario Building What Could the Future Look Like?



- Potential Scenarios
  - How does TIA effect the region?
  - What if there is a higher demand for freight movement?
  - What if there is limited funding?
  - Where are there opportunities for growth?
    - Infrastructure investment
    - Socioeconomic change

# Scenario Building Transportation Investment Act





#### **Next Steps**



- Continue Public Outreach
  - RC / MPO Presentations
  - Targeted Kiosk Events
  - Website
- Analyze Scenarios
- Conduct Economic Analysis
- Reconvene in the Spring







### **Georgia Department of Transportation**

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